

Abstract

Apparatus and methods for generating repeatable closure of a volume measurement chamber are provided. More particularly, in one embodiment of the present invention, a dual articulating hinge is used to affix a chamber door to a volume measurement chamber, providing repeatable closure of a chamber door. In another embodiment of the invention, a laterally compliant magnetic latch is used to fasten a chamber door to a volume measurement chamber. In a third embodiment, a chamber door lid is mounted to a hinge bar via a ball joint, allowing the chamber door lid to self center about the chamber opening.